REMARKS

This Amendment is responsive to the Office Action mailed October 6, 2004. In that Action, claims 1 and 15 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent Number 6,324,654 to Wahl ("Wahl") in view of U.S. Patent No. 6,564,221 to Shatdal ("Shatdal"). Claims 2-6, 9-14, 16, 17, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wahl in view of Shadal and further in view of Hogg and Craig, "Introduction to Mathematical Statistics", 5th Edition. Lastly in the Office Action, claims 7, 8, and 18-23 were indicated as containing allowable subject matter. Those claims have now been rewritten into independent form to include all of the limitations of their respective base claim and any intervening claims.

The Present Application:

For purposes of review, the subject application is directed to a method and system for database administration and replication. A random sampling algorithm is built in or integrated with a database management system to provide very efficient partition analysis on very large databases, accurate to within a few percentage points. The accuracy is not affected by the size of the database but is, instead, determined primarily by the size of the sample of the database, thereby reducing the amount of time necessary for analysis, permitting a frequent and timely analysis of the database. One benefit obtained from the present system as a result of integrating the sampling facility with the relational database is a reduction in the number of system calls required to perform an approximation partition analysis.

The Office Action:

In the Office Action, the Examiner took the position, with regard to independent claims 1 and 15 that Wahl teaches a method for administration and replication of a database. However, the Examiner indicated that Wahl does not explicitly disclose providing a database management system with a built-in random sampling facility configured as an integral part of the database management system, whereby the random sampling facility has access to low level functions and buffers of the database management system; and executing said random sampling facility from within the database management system. However, according to the Examiner, Shatdal teaches a random sampling facility "incorporated" in a "database processing." Therefore, according to the Examiner, it would have been obvious that the random sampling facility has access to low level functions and buffers because, during execution, the random sampling facility will call low level functions to such random samples and store the samples In memory buffers of the database management system for processing.

Independent claim 1 recites a method for administration and replication of a database and includes the limitations of providing a database management system with a built-in random sampling facility <u>configured as an integral part of</u> said database management system<u>, whereby the random sampling facility has access to low level functions and buffers of the database management system</u>, executing the random sampling facility from within the database management system, and performing a replication operation on said database.

Applicants respectfully submit that <u>Shatdal does not teach,</u> suggest, or fairly disclose <u>a random sampling facility integrated into a database management system</u>. Applicants agree with the Examiner that Wahl does not explicitly disclose a random sampling facility integrated into a database management system. Accordingly, it is respectfully submitted that the combination of Wahl with Shatdal does not teach, suggest, or fairly disclose the

method recited in independent claim 1.

  With regard to the Shatdal patent, it is respectfully submitted that the fetching of the random samples as discussed at column 2, beginning at line 34 is performed by utilizing an extension of structured query language (SQL) statements which allow users to formulate relational operations on tables. As described at column 1, beginning at line 22, one of the most common SQL statements executed by an RDBMS is to generate a result set from one or more combinations of one or more tables and other functions. The passage cited by the Examiner (col. 2, l. 34, 35) in support of a position that Shatdal teaches a random sampling facility is, at best, a teaching of integrating sampling functions with other SQL statements. The Examiner appears to recognize this in the characterization of the Shatdal patent as "Shatdal teaches the random sampling facility is integrated into database processing" (emphasis added) in the Office Action. The Shatdal patent does not teach or suggest a random sampling facility integrated into a database management system but, rather, only seems to suggest integrating functions in connection with a sampling together with "the rest of the database processing" as stated in column 2 at line 35 of Shatdal.

  In order to reinforce the "built-in" nature of the random sampling facility in accordance with the present invention, the independent claims (claims 1, 6, and 15) have been amended for clarification purposes only. The random sampling facility has access to low level functions and buffers of the database management system unlike the random samples fetched in the Shatdal patent which are "integrated with the rest of the database processing" on par with other SQL statements formulated by users of the system. As described at column 2, beginning at line 55 of Shatdal, operators of the computer system 100 generally use a work station 110, terminal, computer, or other input device to interact with the computer system 100. This interaction generally comprises queries that conform to the SQL standard, and evoke functions performed by the RDBMS software executed by the system 100. Nowhere in the Shatdal patent is there a suggestion of built-in random sampling facilities configured as an integral part of

a database management system whereby the random sampling facility has access to low level functions and buffers of the database management system.

Independent claim 1 has been previously amended above to clarify the connectedness between the database management system and the built-in random sampling facility.

For at least the above reasons, it is respectfully submitted that independent claim 1 as amended above is patentably distinct and unobvious over the references of record. Allowance of independent claim 1 and claims 2-5 dependent therefrom is respectfully requested.

Similarly, independent claim 6 has been previously amended for clarification purposes to recite the integration of the random sampling facility into the database management system. Again, none of the reference of record teach, suggest, or fairly disclose a random sampling facility integrated into a database management system, the random sampling facility having access to low level functions and buffers of the database management system.

For at least the above reasons, it is respectfully submitted that independent claim 6 and claims 9-14 dependent therefrom are patentably distinct and unobvious over the references of record.

Applicants have also previously tendered an amendment to independent claim 15 for clarification purposes to ensure that it is clear to the Examiner that the random sampling facility is integrated with the database management system and is configured as a part of the database management system. The random sampling facility has access to low level functions and buffers of the database management system. None of the art cited by the Examiner teaches, suggests, or fairly discloses a built-in random sampling facility configured as part of a database management system. Again, at best, the sampling functions performed in Shatdal are "integrated with the rest of the database processing" in a manner on par with other SQL statements.

For at least the above reasons, it is respectfully submitted that independent claim 15 and claims 16, 17, and 24 dependent therefrom are

patentably distinct and unobvious over the art of record.

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CONCLUSION

In view of the comments and arguments presented above, applicants respectfully submit that all pending claims are in condition for allowance.

Allowance of all pending claims and early notice to that effect is respectfully requested.

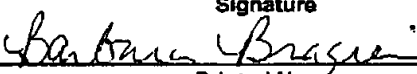Respectfully submitted,

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